US ARMY CENTER FOR HEALTH PROMOTION AND PREVENTIVE MEDICINE (CHPPM)

Located at Aberdeen, MD, CHPPM provides worldwide scientific expertise and services in preventive medicine, environmental and occupational health, health promotion and wellness, epidemiology and disease surveillance, toxicology, and related laboratory support. People with a wide range of skills responded to the Pentagon.

Organizing the Response

Immediately after the second aircraft strike in New York, CHPPM activated its Emergency Operations Center and "We started to bring in civilian and military individuals to start to brainstorm as to what our role may or may not be in New York." Fortunately, there had recently been an exercise to coordinate an emergency response with MEDCOM and OTSG, and staff had recent experience. Ultimately, the Federal Emergency Management Agency would take the lead in New York City, leaving CHPPM to work in the Pentagon.

As news spread about the attacks, an early reaction was to check on CHPPM personnel who might have been affected. "I thought 'I've got to get accountability of everybody here as soon as possible'. I guess that took about an hour, honestly, from start to finish, because I even had people calling Fort Sam Houston and I had a guy at the Air Assault Course. I just wanted to know that somebody had contacted them and that they were OK. Then I wanted to call the families of the people whose guys were out and about, to assure them that their folks had been accounted for, that they were OK."

After that, CHPPM began assessing what it could do. "The initial response from CHPPM involved putting together a multi-disciplinary team to characterize the environmental exposures so that we could quickly characterize the hazards that were there." "Once we realized the extent of the situation at the Pentagon, we were immediately working on dispatching a team down to the Pentagon to help from an occupational environmental health perspective. We were looking at what specialties would be needed, what issues were going to be coming out of it from an occupational health perspective, smoke exposures, radiation. They were all considering chem/bio issues." By late afternoon on September 11, a Special Medical Augmentation Response Team was onsite at the Pentagon. "We made sure that we had cell phones for folks ... we got people set up for 24/7 coverage" and it was easier "in the sense that it was only a few hours away. Just two hours down the road." CHPPM would be supporting the assessment and sampling effort for two weeks at a high level.

Taking Samples in the Pentagon

The SMART team arrived quickly but "we didn't know where to go, and it was tough to get cell phone communication. So we pulled right up to the crash site, right over the curbs, and stood there for a bit, and then we realized that the group we were supposed to link up with was actually in the basement of the Pentagon." Equipment was not a problem. "We took whatever we needed. We took equipment, we took air monitoring equipment, direct reading equipment, and just our tools of the trade, and we knew when

we got down there, whatever we would face, we would just try to address it." Staff officers tried to make sure that personnel would have appropriate protective equipment.

There were problems moving around the Pentagon. "It was very difficult to negotiate around because, for a lot of us, it was the first time we were ever in the Pentagon." Moreover, the FBI was in charge of a crime scene. "FBI forensics would come in when they would find a body, or the FBI would be called in to gather evidence, parts of a plane basically, and get it out of the crash site and bring it in brown bags. They would line up, and I would survey them as they came out. So I did that during the morning." Because parts of the crash site were structurally damaged, they were roped off. "It was roped off on [Corridors] 2 and 7, and then as you get closer to the top floors, you could see the smoke damage being heavier and heavier and heavier. Some of the soldiers, carrying masks, were on duty guarding the hallway so nobody would go in there. I could smell strong smells toward the top. Towards the afternoon of the second day, you could smell death. You could smell the bodies; I don't know if the body would decompose that fast, but I could smell the bodies."

Obviously the area around the crash site had to be tested, but the fires could release toxic materials, and the ventilation system could spread them around. "Our charge was to evaluate ... all five floors, the courtyard, the basement, the child development center ... A pretty phenomenal effort, a large area, what do we focus on first?"

"We were finding heavy metals...aromatic hydrocarbons. We were finding products of the incomplete combustion of fuel because this jet was loaded with fuel and when it crashed, a lot of it did not burn. So we were finding a lot of emissions associated with that. We were finding lead. And we were doing wipe sampling and air sampling, both high volume and low volume air sampling. So a lot of our air sampling, believe it or not, didn't pick up a lot of constituents, but our wipe sampling picked up a lot of stuff, as you might imagine, as a result of the residue and debris that was left from the emissions carried through the HVAC [Heating Ventilation Air Conditioning] system. So precleaning, we found a lot of constituents and contaminants of concern. Post cleaning though, the Pentagon was pretty clean." "The sampling consisted of wipe sampling, taking material and wiping the surfaces, and then getting ready for analysis and shipping them back [to CHPPM] to see whether there was lead and other material in the work place. I think overall the idea was to assure the people that it was safe to go back into the Pentagon offices. There was a lot of work done in offices that had 'been cleared,' but the people were questioning, 'Hey, what is this stuff? Is it bad for me?'"

The work was constant, and draining. "The team came back the next day, and my three guys came back in my office, and they were just coming back to pack up and go back down again. One of my project officers couldn't go back down again. He mentally could not deal with it, and we replaced him."

Other services helped, but there were also problems with different chains of command. "We had our industrial hygienist, the Army industrial hygienist. The Air Force came and provided support. The Navy finally got there, but the Navy wanted an official letter before they would do anything. I said, 'We're not writing any letters. There's no time to

write.' They finally showed up, because everybody wanted to show that they were supporting things. And we also had contractors that worked for the Pentagon health clinic. We had all these different people working on this project together, and it was frustrating." "But there did not appear to be a single person in charge at the Pentagon. There appeared to be many people in charge, and we responded to many, many different kinds of requests." "The days were at least 18 hours long for those two weeks that we were down there. We worked not only with the Pentagon people, but with the Air Force, Navy, and a whole host of other agencies that came in as part of one team."

It was not easy to keep everyone informed. "Throughout DoD, the senior leadership's requests for information were insatiable. They wanted to know not only that there was somebody on the job, but what corridor they had sampled that afternoon, and what the results were. ... Expectations for information were almost out of control, where we had people calling here asking for sample results prior to the sample even arriving [for testing]. The sample would have been taken off the sampler at say 7:00 in the morning. Samples would arrive here by 9:30 or so. We had people calling at 8:00 in the morning, 'Hey, you guys finished sampling an hour ago, what are the results?' And they were senior leaders; we had from the Secretary of the Army's office, throughout the AMEDD, the Office of The Surgeon General, all trying to keep people informed. The Chairman [of the Joint Chiefs] was getting briefed on this every day."

Analyzing the Samples and Reporting Results

Once the samples had been collected, it was the turn of the lab analysts. "Once the samples started coming back in from collection at the Pentagon, we were able to get those over to our own laboratory, coordinate that, have them turn around the results very quickly, and then we would format them, quality control, quality assure them, and send them back down to the personnel at the Pentagon so that they could interpret that and get it to the people for the areas." "You can get commercial labs to do the routine stuff on a day-by-day basis, but there's only a few laboratories like us within DoD that are able to respond and turn this kind of data out, this mass of different analytes that they ask for." "We did close to 1,500 samples that we analyzed for 19,000 contaminants. We turned 94 percent of these around in 32 hours. We worked until midnight, and many of them then returned again the next morning at 5:00 or so."

"Those days were long. It was kind of confusing at first, because you didn't know when they were going to come in. They didn't know what to expect when they got down there. ... They would start coming in about six o'clock. ... we were looking at the data, getting a report ready, because they wanted the data right away. We worked together as a team, and did that nonstop for a week and a half."

"We did a lot of air samples for asbestos. There were also metals, there was drinking water, there were wipe samples for metals, for lead. ... I enjoyed the teamwork. I wish this effort was done for a different reason. Between the sadness and the tragedy, I liked the idea that we worked to help each other in a way we haven't seen before. I was wondering 'why do we need tragedy like this to get together'?"

Because of the number of organizations in the Pentagon, it was hard to spread the news that areas were safe, and hard to answer the concerns of each organization that its space was clean. "It took a lot of different techniques to try to allay some of their fears, to get them the correct medical information that some of these people were requesting. There must have been thirty-five different organizations involved in that response effort. Every one of them very sincere and doing their best to try to help people, but with that many organizations involved, the communications also were difficult with regard to everybody that was involved." A senior officer "spent most of her time in meetings with either Pentagon personnel or some of these response personnel, trying to make sure that the right hand knew what the left hand was doing." Information on when it was safe to return to work, especially for pregnant women, took time to disseminate. "That wound up having to go all the way through The Surgeon General's office."

The Health Survey

Public health specialists at CHPPM soon began work on what turned into the Pentagon Post Disaster Health Assessment, "a rapidly deployable survey could be done that would be accessible on line as well as hard copy that would allow people in the Pentagon, whether they were injured or not, to be able to describe their health problems if any or the effects that the events of 9/11 would have on them. This information would then be held in a secure database that could be referenced in the future if there were any long term consequences that might come from the events of 9/11 from a health standpoint." It was more than a way to gather health data so people could have it in future, it was a way to reassure the Pentagon and rescue communities that their future health needs were being considered. CHPPM was the lead agent, but it involved many other Army and DoD groups "and every little thing was a big committee, every word to put on an e-mail or a web page. It was frustrating." Still, the survey was available in one month, and ultimately over 5,000 people responded.

Another survey was begun to gather information on the health consequences and exposures for National Guard personnel from New York and New Jersey.

This summary was compiled from interviews with the following personnel:

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Mr. Larry Cook
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Miss Donna Doganiero
COL Walter Edgerton
COL Ralph Erickson
Dr. Jack Heller
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COL Jim Little
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Mr. David Morrow
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